


Section 4.5

Strategy for Promoting Adoption of Scientific Flower Crop Production Technology

1. Creation of appropriate infrastructure for production, post harvest handling, and transportation of floricultural products.

2. Establishment of appropriate marketing/distribution channels preferably near to the production centres.

3. Need based problem solving research and development and extension in order to improve the knowledge level of farmers and there by bridging the adoption gaps.

4. Providing sufficient market infrastructure for promoting organised marketing of flower crops.

5. The government should come forward with assured minimum support price and regularize wholesale market operations.

6. Provision of sufficient financial support for commercialization of flower production.

7. Making availability of new varieties and improved planting materials for large-scale production.

8. Necessary infrastructure and support systems needs to be developed including organized market yards, auction platforms and controlled condition storage chambers.

9. Effective post harvest management practices need to be popularized among flower flowers.

10. Greater research efforts are also needed for integrated pest management, development of location specific package of practices for traditional flowers value addition to traditional flowers etc.


Shrivastava, A. K. (1993). Impact of training and visit system on level of knowledge, attitude and adoption of contact and non-contact farmers of block Chaubeput in district Kanpur Dehat.


Trivedi, G. and Pareek Udai (1963) A Scale for measurement and analysis of socio-economic status of rural families: A bulletin, Indian Agricultural Research Institute, New Delhi.


INTERVIEW SCHEDULE

Title of Research Project: “Study on Technological Gap and Constraints in Adoption of Flower Crops in Delhi”

SL.No.

Block: __________ Village: __________

Name: __________ S/o Sh. __________ Age: __________

1. Religion:

2. Caste:
   a) Schedule caste
   b) Backward
   c) Upper

3. Education status:
   a) Illiterate
   b) Can read
   c) Read and write
   d) Primary
   e) Middle
   f) High school
   g) Graduate

4. Family type:
   a) Single
   b) Joint

5. (i) Size of family:
   a) Upto three members
   b) 4 to 6 members
   c) More than 6 members

   (ii) No. of unemployed persons in the family and their education:

6. Social participation
   a) No membership
   b) Membership in one organization
   c) Membership of more than one organization
   d) Office bearer
   e) Distinctive features
7. Socio-economic status

(I) House
   a) Kachha
   b) Mixed
   c) Pucca

(II) Occupation
   a) Main
   b) Subsidiary

(III) Farm Power and Farm Implements
   a) Tractor(s)
   b) Buggi or bullock cart
   c) Thresher
   d) Cultivator
   e) Sprayers
   f) Tube well/Diesel Engine
   g) Seed Drill
   h) Others

(IV) Material Possession
   a) Fridge
   b) Furniture
   c) Cooler
   d) Telephone
   e) Scooter/Motor cycle/Car
   f) Cooking gas
   g) Washing machine

(V) Land
   a) Irrigated ________ acres
   b) Un-irrigated ________ acres
   c) Source of irrigation

(VI) Land type

(VII) Water quality

(VIII) Nearest flower mandi Name: ________ distance from village ______

(IX) How many persons in the village are growing flower ______

(X) Is the village has public transport facility? Yes/No
8. Knowledge of recommended practices of high-yielding varieties of flower crops cultivation.

On the basis of your knowledge and experience, please let me know the following details about the recommended practices of growing of high-yielding varieties of Marigold, Rose and Gladiolus.

<table>
<thead>
<tr>
<th>No.</th>
<th>Recommended Practices</th>
<th>Know</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td><strong>Seed</strong></td>
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</tr>
<tr>
<td>1a)</td>
<td>Marigold</td>
<td>Pusa Narangi, Pusa Basmati, Tangerine Yellow, Bonita, Butter Scotch, Lemon Drop, Rusti Yellow</td>
<td></td>
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<tr>
<td>1b)</td>
<td>Rose</td>
<td>Super Star, Grimson Glory, Eiffel Tower, Pusa Gaurav, Pusa Priya, Arjun, Pusa Bahadur</td>
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<tr>
<td>1c)</td>
<td>Gladiolus</td>
<td>American Beauty, Friend-Ship, Heady Wine</td>
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</tbody>
</table>

II. **Method of Sowing (row to row distance)**

<table>
<thead>
<tr>
<th>No.</th>
<th>Recommended Practices</th>
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<tbody>
<tr>
<td>2a)</td>
<td>Marigold</td>
<td>Nursery Preparation, 700-800 gms seed per hectare, sowing 6-8 cm apart</td>
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<tr>
<td>2b)</td>
<td>Rose</td>
<td>Plantation in prepared pits, Plant at 45-60 cm distance</td>
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<tr>
<td>2c)</td>
<td>Gladiolus</td>
<td>Line to line 60-60 cm distance, 10 cm deep 1.5 lakh plants in one hectare</td>
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</table>

III. **Plant to Plant distance**

<table>
<thead>
<tr>
<th>No.</th>
<th>Recommended Practices</th>
<th>Know</th>
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<tbody>
<tr>
<td>3a)</td>
<td>Marigold</td>
<td>30X40 cm to 40X40 cm</td>
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<td>3b)</td>
<td>Rose</td>
<td>40-45 cm</td>
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<tr>
<td>3c)</td>
<td>Gladiolus</td>
<td>1. Plants 15 cm apart 2. 30-40 cm between rows</td>
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</table>

IV. **Sowing Time**

<table>
<thead>
<tr>
<th>No.</th>
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</table>
b) Rose October & November

c) Gladiolus September to November

V. Seed Rate (per hectare)
a) Marigold 700-800 gms at a distance of 6-8 cm and 2 cm deep
b) Rose 7000 plants per hectare
c) Gladiolus 1.5 lakh corms

VI. Seed Treatment
a) Marigold The soil should be drenched with 2% cap tan before sowing
b) Gladiolus Stamp medicine to spray after sowing @ of 3.50 liter/hectare for weed control

VII. Fertilizer
a) Marigold 120 kg N, 80 kg phos & 80 kg potash per hectare
b) Rose 4-5 kg FYM per plant, 50-100 gms per plant NPK (mixed) (1:3:2)
c) Gladiolus 50 gms nitrogen, 20 gms phosphorus & 20 gms potash, 50 gms bone-meal & 20 gms neem cake per square meter

VIII. Irrigation
a) Marigold In summer at 4-5 days interval
In winter 8-10 days interval
b) Rose Soil should remain neither dry nor wet after irrigation. At an interval of 7 days during winter
c) Gladiolus Light irrigation to keep soil moist

IX. Inter-culture
a) Marigold Five nos hoeing and weeding
b) Rose Keep in water buckets for longer life

c) Gladiolus For 4-8 days storage keep in 2.3-2.8°C
Celsius first 2 days keep in 4.5°C
Celsius

XII. Plucking

a) Marigold Morning time in full bloom

b) Rose In the afternoon and before blooming

c) Gladiolus Pluck when one flower in bloom pluck early for storage at 2.3-2.8°C Celsius
Dip the cut portion in sugar solution 4%, 8 HQC-7% solution and keep in sun light for early bloom

XIII. Marketing

a) Marigold Morning time plucking in full bloom and storage at a cool place

b) Rose Cut the flowers in afternoon and before bloom and put in water bucket for long life

c) Gladiolus One Dozen flower stacked in rubber bands

9. Source of Information

a) Radio
b) Television
c) Farm Bulletin
d) Extension Worker
e) Agricultural University

10. Names of Flower Mandies in and around Delhi

Know Don’t Know

a) Flower Mandi, Connaught Place
b) Flower Mandi, Mehrauli, New Delhi
c) Kisan Flower Mandi, Khari Baoli, Delhi
d) Radye Shyam Flower Mandi, Khari Baoli, Delhi
II. Level of Adoption

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<td></td>
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I. Seed

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<tbody>
<tr>
<td>a) Marigold</td>
<td>4. Jan-Feb for summer</td>
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<td>5. May-June for rainy</td>
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<td>6. Sept-Oct for winter</td>
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c) Gladiolus  September to November

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c) Gladiolus  Light irrigation to keep soil moist
IX. **Inter-culture**

a) **Marigold**
   - Five nos hoeing and weeding

b) **Rose**
   - Pruning-October. Meta-systox.
   - Rogur. Bavistin spray after pruning

c) **Gladiolus**
   - Earthing after 40-50 days of plantation

X. **Plant Protection**

a) **Marigold**
   - Red Spider, Powdary Mildew.
   - Virus diseases
   
   **Control**
   
   Red Spider – 0.2% Metalthion spray
   
   Powdary Mildew – 0.2% Soluble sulphur spray
   
   Virus diseases and rust 0.2% meta-systox spray at 15 days intervals

b) **Rose**
   - Insects Pests and Diseases – Red scale, Rose Chhefer, Chepa Madu, Dibeck, Powdary Mildew, Black Spot
   
   **Control**
   
   Powdary Mildew – Soluble, Sulphur and Carathane Solution two time spray
   
   Red Scale – 0.1% Perathione Solution spray
   
   Red Chhefer – spray Gamanaxine powder
   
   Chepa – Metalthion spray
   
   Die back – use paste on the cut portion of 4 parts copper carbonate and 4 parts lead and five parts Lin seed
IX. Inter-culture

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b) Rose     Pruning-October, Metasystox, Rogur, Bavistin spray after pruning

X. Plant Protection

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            Control
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            Powdery Mildew – 0.2% Soluble sulphur spray
            Virus diseases and rust 0.2% metasystox spray at 15 days intervals

b) Rose     Insects Pests and Diseases – Red scale, Rose Chhefer, Chepa Madu, Dibeck, Powdery Mildew, Black Spot
            Control
            Powdery Mildew – Soluble, Sulphur and Carathane Solution two time spray
            Red Scale – 0.1% Perathione Solution spray
            Red Chhefer spray Guanaxine powder
            Chepa – Melathione spray
            Die back – use paste on the cut portion of 4 parts copper carbonate and 4 parts lead and five parts Lin seed
XI. Storage

a) Marigold  Storage at cool place and in cane baskets
b) Rose    Keep in water buckets for longer life
c) Gladiolus  For 4-8 days storage keep in 2.3-2.8°C Celsius first 2 days keep in 4.5°C Celsius

XII. Plucking

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b) Rose    In the afternoon and before blooming
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c) Gladiolus  One Dozen flower stacked in rubber bands
12. Problems faced by the farmers in flower cultivation on their farm

<table>
<thead>
<tr>
<th>No.</th>
<th>Problems / Constraints</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Lack of knowledge regarding production facility</td>
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<tr>
<td>2.</td>
<td>Poor economic condition of the farmers</td>
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<td>3.</td>
<td>Low risk taking capacity</td>
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<td>4.</td>
<td>Non-availability of rose, Marigold &amp; Gladiolus finance in time</td>
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<td>5.</td>
<td>Non-availability of seed and seedlings of HYV</td>
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<td>6.</td>
<td>High cost of inputs</td>
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<td>7.</td>
<td>Lack of knowledge regarding application of fertilizer</td>
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<td>8.</td>
<td>Lack of guidance by extension worker about modern technology</td>
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<td>9.</td>
<td>Risk of flower failure</td>
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<td>10.</td>
<td>Lack of store facility</td>
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<td>11.</td>
<td>Lack of marketing at local place</td>
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<td>12.</td>
<td>Uncertainty of market price</td>
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<td>13.</td>
<td>Perishable nature of product</td>
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<td>14.</td>
<td>Non-availability of labour</td>
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<td>15.</td>
<td>Lack of processing facility</td>
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<td>16.</td>
<td>No support price</td>
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<td>17.</td>
<td>Any other</td>
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<td>18.</td>
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<td>20.</td>
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13. Your suggestions for promoting flowers cultivation your area.